Record -1 DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 Information Access Co. All rts. reserv. 03219041 YUCCA MOUNTAIN: NEW DRAFT PROGRAM PLAN SEEKS TO REFLECT RECENT CHANGES Nuclear Waste News June 14, 1996 V. 16 NO. 24 ISSN: 0276-2897 WORD COUNT: 862 DOE June 12 released a draft program plan for work at the proposed high-level radioactive waste repository at Yucca Mountain, Nev. The new plan, a revision to DOE's 1994 program plan, spells out the specific changes in the civilian waste program the department has talked about over the last several months.

The program plan maintains essentially the same schedule for opening a repository at Yucca Mountain as DOE anticipated when the agency unveiled its fiscal year 1996 budget. But Congress drastically reduced funding for the program, and this year's budget request is down significantly from DOE's original FY'96 request.

Viability Assessment in 1998

The new program plan calls for DOE to complete a viability assessment at Yucca Mountain by 1998. If the site proves viable, DOE will request an NRC license and begin construction in 2002. Under this schedule, the repository could be ready for waste by 2010.

"This (the Clinton) administration is committed to resolving the complex and important issue of nuclear waste in a timely and sensible manner," Dan Dreyfus, head of DOE's Office of Civilian Radioactive Waste Management, wrote in a letter to stakeholders accompanying the new program plan.

"The president's fiscal year 1997 budget supports an aggressive and efficient program to reach an early decision on the suitability of the Yucca Mountain site in Nevada as a geologic repository," Dreyfus said.

No Interim Storage Plan

The new program plan does not include plans for the interim storage of spent nuclear fuel. Instead, Dreyfus maintains the Clinton administration's position of doing no site-specific work on an interim storage facility until a decision on Yucca Mountain is reached.

"Prior to the completion of scientific and technical work, ... any activities related to the development of an interim nuclear waste storage facility must be limited to non-site specific design and engineering activities," Dreyfus said.

DOE officials would not give a date or specific criteria for when site-specific work on an interim facility could begin. The language on interim storage amounts to a disclaimer, saying DOE does not support either of the bills in Congress calling for the construction of interim storage facilities (H.R. 1020 and S. 1271), an agency spokeswoman said.

The main elements of DOE's new plan are:

Updating the regulatory framework for a repository. DOE plans to amend its siting guidelines, 10 CFR 960, making them specific to Yucca Mountain. The agency gave no date, but the new rule is expected sometime this summer.

DOE's rational for this change is based on the repository program is no longer comparing various sites, but is considering only Yucca Mountain. The existing rule is designed for comparing several sites, the program plan says. The Environmental Protection Agency's development of site- specific radiation standards for Yucca Mountain is another reason to change the repository regulations.

Under the new rule, the post-closure performance assessment will be based on the performance of the entire repository system, instead of evaluating individual aspects of the site. "An overall systems performance approach is the appropriate method to consider all relevant site features, because it identifies, in an integrated manner, those attributes of the site and engineered components that are most important to the protection of health and safety," the plan says.

Completing the viability assessment at Yucca Mountain by 1998. The assessment will involve repository and waste package design and an evaluation of the performance of natural and engineered barriers. A cost estimate to complete work required for a license application and a cost estimate for construction and operation are anticipated as part of the viability assessment.

"We believe that these components, taken together, will provide a better understanding of the repository design and its performance in a geologic setting, a better appreciation of the remaining work needed to prepare a license application and a more precise cost of a repository," the plan says.

Recommending a repository site to the president in 2001 and submitting a license application to NRC in 2002. Under the new program plan, before DOE makes its recommendation to the president, it will

publish a notice of consideration and announce the schedule for public hearings to be held in areas near Yucca Mountain. After the hearings, DOE will notify the state of
Nevada about the decision to recommend the site. Following this, DOE will make its recommendation to the president. If the president approves the site, a license application will go to NRC.
In conjunction with this phase of activities, DOE will conduct an integrated safety assessment, scheduled for completion in 1999, and an environmental impact statement. The draft EIS is due in the year 1999, with the final EIS to be completed in the year 2000.
The revised program plan allows DOE to reach the licensing phase of the Yucca Mountain project for $1 billion less than the old program plan, Dreyfus said. "This revised plan is intended to ensure that the momentum that has been achieved in the Civilian Radioactive Waste Management Program will be maintained and enhanced in the years ahead."
For copies of the revised program plan, contact the Civilian Radioactive Waste Information Center at (800) 225- 6972 or via the Internet through OCRWM's home page: http://rw.doe.gov.

Record -2
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03219040 NUCLEAR WASTE FUND: MINNESOTA AGENCY RECOMMENDS WITHHOLDING WASTE FUND FEES Nuclear Waste News June 14, 1996 V. 16 NO. 24 ISSN: 0276-2897 WORD COUNT: 298

Minnesota's Department of Public Service (DPS) recommended the state Public Utility Commission (PUC) withhold payments into the federal Nuclear Waste Fund and place the money in an escrow account. PUC will make the final decision on the recommendation, contained in a June 12 DPS investigative report.

"A separate account assures that Minnesota ratepayers' money is used for the purpose intended - nuclear waste storage and disposal," said DPS Commissioner Kris Sanda. "It creates a dedicated fund to pay for waste disposal at the Prairie Island plant. It also will allow NSP (Northern States Power), with regulatory approval, to use the money for either a federal or private disposal facility."

DPS, in its report, pointed out U.S. utilities were forced to sign disposal contracts with the federal government and pay the 1 mill per kilowatt-hour fee or risk losing their nuclear operating licenses. Consumers ultimately pay the fee as part of their monthly electric bills.

'DOE Is Reneging'

"Now DOE is reneging on its commitment to begin waste disposal by January 1998," said Sanda. "As a result, Prairie Island faces shutdown in 2004 due to lack of storage space, and Minnesota electric consumers face additional costs of $522 million to $801 million."

DPS determined it was virtually impossible for DOE to accept spent fuel in 1998; therefore, DOE can no longer justify the fee as a legitimate expense for NSP to pass on to consumers.

Instead, DPS recommended NSP be required to place the money collected into an externally managed escrow account. DPS also called for establishing criteria for the release of funds and making any recovery of the funds contingent upon measurable progress in solving NSP's waste disposal problems.

Contact: Minnesota Department of Public Service, 121 7th Place East, Suite 200, St. Paul, MN 55101-2145; (612) 296- 1883.

Record -3
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03205414 OCRWM: DOE SEEKS INPUT ON PROPOSED RFPS FOR MOVING SF TO FEDERAL FACILITY Nuclear Waste News May 30, 1996 V. 16 NO. 22 ISSN: 0276-2897 WORD COUNT: 638

DOE anticipates contracting for most packaging and transportation required to move spent fuel (SF) from civilian nuclear reactors to a federal storage or disposal site (NWN, May 2, p. 173). The Office of Civilian Radioactive Waste Management (OCRWM) is seeking both expressions of interest from companies with services or products to offer and general comments on its proposed approach to accepting, storing and transporting the SF.

DOE proposes to contract for supplies and services, including accepting SF from utility sites; supplying compatible transportation (and possibly storage) casks and equipment; and transporting the fuel to a federal site. Contractors also would be responsible for any intermodal transport required, including heavy haul.

Contractors may be permitted to alter the order of SF acceptance to achieve operational efficiency or to lower costs. Contractors would work with the utilities to determine the best way to service each site and would recommend preferred transportation routes to the federal facility. Contractors also would work with state, local and tribal governments along the route.

Initially, spent fuel delivered to the federal site would be canistered before arrival at the facility; however, in the future contractors may be required to handle uncanistered fuel. Transportation and storage equipment to be supplied would be required to comply with applicable Nuclear Regulatory Commission and Department of Transportation regulations, OCRWM acceptance criteria and standard commercial practices.

The department anticipates awarding multiple competitive, fixed-price contracts with a phased implementation that includes sequential development of business and servicing plans describing contractors' individual approaches, fabrication and acquisition of hardware and transportation services operations.

One approach DOE is considering involves dividing the country into regions, for example, the four NRC regions. No contractor would be awarded more than two regional service contracts.

DOE anticipates issuing several requests for proposals (RFPs) over the next few decades, with more than one award made under each RFP.

Contract terms will average five to 10 years, allowing a contractor two to three years to procure transportation and storage equipment and achieve operational readiness. Waste acceptance and transportation would take place over the remainder of the contract period. OCRWM also has concluded a service period of several years will allow contractors the flexibility to improve operational efficiency and reduce costs.

For planning purposes, DOE assumes a federal facility could begin operations within four years of statutory direction. Contractors would be expected to begin developing service arrangements with purchasers two to three years before SF shipments began.

DOE is most interested in expressions of interest and comments in the following areas:

The ability of transportation service contractors and utilities to reach agreement on methods and schedules for servicing specific sites, including ways to foster utility cooperation.

The willingness of utilities to construct temporary or permanent physical plant modifications and to obtain license amendments or technical specifications changes that would improve the efficiency and reduce the costs of loading and removal of SF from plants.

The reasonableness of dividing the country into a number of regions to preserve competition and industrial capability in the marketplace, while still ensuring low cost services to OCRWM.

The nuclear industry's capability to acquire sufficient production capacity for canisters, transportation casks and storage modules to meet near-term service-contractor requirements.

Potential business arrangements and pricing structures which might increase contractor freedom and flexibility to develop and implement innovative approaches to improve system efficiency and lower costs, reduce or eliminate the need for OCRWM front-end financing of contractor activities and procurements, and mitigate risks associated with programmatic uncertainties.

Alternative methods of structuring this procurement to ensure competition on future procurements.

DOE will consider all information, recommendations and suggestions. Respondents are asked not to provide any information they consider privileged or confidential. Submittals (one original and three copies) should be sent to: Michelle Miskinis, Contracting Officer, DOE, 1000 Independence Ave., SW, Attention: HR-561.21, Washington, DC 20585; (202) 634-4413.

Record -4
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03205412 PRIVATE HLW STORAGE: SKEPTICISM GREETS PRIVATE INITIATIVE FOR U.S., RUSSIAN
PACIFIC REPOSITORY Nuclear Waste News May 30, 1996 V. 16 NO. 22 ISSN: 0276-2897
WORD COUNT: 944

A Washington, D.C., entrepreneur has a plan he thinks will solve the nuclear waste problem, foreclosure future reprocessing initiatives and provide a safe storage alternative for fissile materials. The idea, however, has been greeted with great skepticism by all sides, including government officials, environmentalists and the nuclear industry.

Alex Copson, head of the Washington, D.C.-based company, Nuclear Disarmament Services, wants to ship the material to an isolated island in the Pacific Ocean, where it will be stored in above-ground bunkers. His main selling points are that the plan would halt reprocessing operations and provide a safe place to secure fissile material.

"It's the biggest anti-nuclear nuclear project" in the world, Copson said.

Under Copson's plan, the United States and Russia jointly would operate a storage facility for spent nuclear fuel and plutonium on a Pacific atoll. The facility also would accept spent fuel from other nations.

Pay Russia Not To Reprocess

The goal is to get all the worlds' spent fuel in one place, Copson said. Money collected from storage fees would go to the Russians as compensation for not reprocessing their spent fuel.

The facility would accept spent nuclear fuel from civilian and military reactors and plutonium created for nuclear weapons during the Cold War, Copson said. It would not accept low-level or intermediate-level wastes or vitrified high-level radioactive waste.

The Russians view reprocessing as essential to their energy needs and their economy. They want to use plutonium in a mixed oxide fuel for civilian reactors and repeatedly have stated they do not want to waste the energy value in their plutonium and spent fuel.

The value of plutonium, however, is minimal to nonexistent, Copson said. Instead, the storage plan offers the Russians a way to earn hard currency. Russian participation in the plan is the key to its success, according to Copson. If Copson cannot interest the Russians in the project, he will abandon the project, he said.

Under Copson's plan, spent fuel would not be stored in a permanent repository, but in storage casks placed in bentonite clay and stored on the surface of the island. "There is no such thing as final disposal," he said, adding this option allows easy access to the spent fuel if future generations develop a better way of dealing with it.

'I'm Going into the Cask Business'

The casks should out-last the gamma- and beta- emitters in the spent fuel, Copson said. When casks corrode, they simply will be replaced with new casks. Copson plans supply the storage casks for the project.

"I'm going into the cask business." Copson claims to have an agreement with Bethlehem Steel and the German company, GNB, to mass produce the storage casks needed. NWN was unable to get either confirmation or denial from Bethlehem Steel before this issue went to press.

Copson would not say what islands he is looking at to store the spent nuclear fuel, though he said he has six possible sites, including two U.S.-possessions and four other islands. The environmental group Greenpeace said Copson claims he bought Palmyra, a U.S.-owned atoll south of Hawaii for his project, but Copson would not confirm that.

Before embarking on his current venture, Copson promoted deep ocean disposal of nuclear waste, according to a source familiar with his activities. After that failed, he began looking at terrestrial options for nuclear waste storage, the source said.

Marshalls Not Interested

Copson evidently approached the Republic of the Marshall Islands with his proposal, hoping he could use one of their islands. In the past, the Marshall Islands expressed interest in hosting a spent-fuel repository.

The Marshalls, however, rejected Copson's proposal, according to sources. Copson, however, claims it was the Marshallese who approached him, but he rejected them because they are "not a nation to be trusted." Copson has talked down the Marshallese since his project was rejected, the sources said.

A May 20 article in the German magazine Der Spiegal indicated the Clinton administration supported Copson's plan and President Clinton suggested it to Russian president Boris Yeltsin at the recent G7 summit in Moscow. Clinton administration officials vigorously deny this.

"This (Copson's plan) does not enjoy administration support," a National Security Council, spokesman said, adding the issue was not raised at the G7 summit.

Copson lacks the support of the U.S. nuclear industry. "We're focused on the repository at Yucca Mountain and interim storage," said Steve Unglesbee, a spokesman for the Nuclear Energy Institute. The United States should deal with its own nuclear waste, he said.

Environmental groups also expressed doubts about technical and political aspects of Copson's plan. "I believe long-term, above-ground storage is unwise," said Arjun Makhijani, president of the Institute for Energy and Environmental Research. Storing waste in the middle of the Pacific Ocean on islands subject to typhoons and possible sea-level changes is irresponsible, he said.

Greenpeace also opposes Copson's plan. A spokesman for the group said that Greenpeace supports the idea of ending reprocessing, but opposes international shipments of nuclear waste and believes all nations should deal with their own waste. Also, South Pacific countries negotiated an agreement barring the import of radioactive waste into the region.

Copson is quick to respond to his critics, saying he offers a "paradigm shift" in dealing with spent fuel. "I'm giving everybody a chance to get their act together," he said.

He was particularly critical of Greenpeace's stand. "The ball is firmly in Greenpeace's lap." He charged that, if the project failed, Greenpeace would be responsible for the resulting problems.

Copson said he will meet with Russian officials in June on his plan, and should know soon if it will go forward.

Record -5
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03198645 TRANSPORTATION: DOE PROPOSES ASSISTANCE POLICY FOR STATES ALONG SF/HLW
ROUTES Nuclear Waste News May 23, 1996 V. 16 NO. 21 ISSN: 0276-2897 WORD COUNT: 317

DOE May 16 issued a proposed policy statement on technical and financial assistance to states along routes for spent fuel (SF) and high-level radioactive waste (HLW) transportation. The money would be provided under the provisions of Section 108(c) of the Nuclear Waste Policy Act.

States, in turn, would provide training for local and Indian tribal officials covering both safe routine transportation procedures and emergency response procedures.

States would decide who gets trained, the level of training and the administering organizations, but would be asked in their grant application to describe funding recipients. Also, they would be asked to describe how the budget would be integrated with other available training resources, such as those available through the Hazardous Materials Transportation Act, the Federal Emergency Management Agency, the Conference on Hazardous Materials Enforcement Development, and state and regional organizations.

Training Equipment

States could use up to 10 percentof each year's funds to purchase training equipment.

DOE funding could be used for refresher training or training for new public safety personnel. During the years when SF/HLW is being shipped through a jurisdiction, two- thirds of the budget could be used to help offset the costs of refresher or new responder training.

Section 108(c) funds would not be available for drills and exercises, because DOE anticipates it will conduct these directly in conjunction with states, tribes and local governments.

Comments are due Aug. 15. Contact: Corinne Macaluso, Environmental and Operational Activities, Office of Civilian Radioactive Waste Management (RW-45), U.S. Department of Energy, 1000 Independence Ave., SW, Washington, D.C. 20585; (202) 586-2837. Information packets on OCRWM's transportation program are available from: OCRWM Information Center, P.O. Box 44375, Washington, DC 20026; (202) 488- 6720; or the Yucca Mountain Science Center, 4101B Meadows Lane, Las Vegas, NV 89107. The May 16 Federal Register notice of the proposed policy, 12 pp., can be purchased through BPI DocuDial, No. 48-1432.

Record -6
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03168784 HLW CONFERENCE: CONTRACTORS WILL TAKE OVER SF TRANSPORTATION SYSTEM Nuclear Waste News May 2, 1996 V. 16 NO. 18 ISSN: 0276-2897 WORD COUNT: 476

LAS VEGAS - DOE will contract out the responsibilities for transporting spent nuclear fuel from reactor sites to an interim storage facility or permanent repository, Dwight Shelor of DOE said April 29 during a session on transportation issues at the 7th Annual International High- Level Radioactive Waste Management Conference.

The contractors will be responsible for route selection and for arranging what type of transportation system, rail, truck, etc., will be used. The contractor also will assume liability for any transportation accidents, Shelor said.

The contracts will be performance-based and fixed-price. DOE anticipates several solicitations issued over several decades, Shelor said. Multiple awards are expected, and Shelor said the United States may be divided into geographic regions, with individual contracts awarded for each region.

At the conference, Steve Kraft from Nuclear Energy Institute said the Nuclear Waste Policy Act does not provide for moving spent fuel from reactors to a disposal site or interim storage facility. Because of this, Kraft argued for a legislative fix focusing on transportation issues, among other things.

But Dan Dreyfus, director of DOE's Office of Civilian Radioactive Waste Management, said the authority to move spent fuel is implicit, but vague, within the Nuclear Waste Policy Act. There is no need for a specific transportation policy from Congress, he said.

DOE anticipates contractors will use existing cask designs or at least existing technologies in new casks for transporting the spent fuel. These casks must meet Nuclear Regulatory Commission (NRC) rules. Because of this, DOE does not expect significant interaction with NRC on transportation regulations, Bill Lake of DOE said. Instead, contractors must be the ones to deal with NRC and most regulatory issues, he said.

Burn-up Credit

DOE, however, will continue to work with NRC to establish a burn-up credit, Lake said. The burn-up credit seeks to acknowledge that older fuel is less fissile, so more of it can go in a shipping cask without criticality concerns.

The private sector has not and will not pursue the burn- up credit, Lake said. It is in DOE's interest, however, to do so. The agency will work with NRC on the matter and expects new regulations, but Lake did not say when this would happen. Beyond the burn-up credit issue, Lake sees no reason for a market-driven transportation system to create new regulations.

A request for expressions of interest to bid on the privatized transportation scheme is expected in the Commerce Business Daily and the Federal Register soon, Shelor said. A pre-proposal conference could be held as early as this summer.

Reaction to the idea contracting out spent fuel transportation was viewed favorably by most at the conference. Since DOE is not budgeting any money to transportation issues, it is the only way the spent fuel can move, one source said. Interest is said to be high among several companies interested in contracting for the work.

Record -7
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03168782 HLW CONFERENCE: CONTROVERSY DOGS EPA STANDARD BASED ON NAS RECOMMENDATIONS Nuclear Waste News May 2, 1996 V. 16 NO. 18 ISSN: 0276-2897 WORD COUNT: 698

LAS VEGAS - A National Academy of Sciences (NAS) report on radiation safety standards for the high-level waste repository at Yucca Mountain, Nev., appears to be generating controversy within the nuclear community. Critics argue the NAS recommendations, issued last year, require speculation rather than hard science.

Since the Environmental Protection Agency (EPA) currently is developing standards based on recommendations made in the NAS report, there are concerns in some circles that, if EPA follows the report's recommendations, regulatory requirements for the repository will be so stringent it can never be licensed, said analysts at a May 1 session on the report held here at the 7th Annual International High-Level Radioactive Waste Management Conference.

The finding that the greatest risk of radiation exposure from the repository will occur one million years after closure, and that safety standards should reflect this fact, is one of the most controversial aspects of the report.

Estimating repository performance beyond 10,000 years only complicates the process, said Stephan Brocoum of DOE.

Calculations Speculative

Any performance calculations beyond 10,000 years become speculative, Brocoum said. There is some value in looking at repository performance for one million years, especially if various sites are being compared, he said. But pass/fail standards for the repository should not go beyond 10,000 years. Looking beyond 10,000 years produces standards science and engineering cannot reasonably defend, Brocoum said.

"This is really - ultimately - a policy decision," Brocoum stressed. EPA should "proceed with caution" in implementing the NAS recommendations, otherwise, the standards could guarantee the repository cannot meet them.

But the NAS report also had supporters. "Terminating dose calculations at 10,000 years gives a false illusion of safety," said Thomas Pigford, a professor at the University of California at Berkeley and a member of the NAS panel that prepared the report.

No uncertainty analysis for performance estimates beyond 10,000 years have been done, Pigford said. People are making claims without any scientific basis. Not doing analysis of repository performance beyond 10,000 years is indefensible, he concluded.

Further complicating matters are industry groups such as the Electric Power Research Institute (EPRI), which are calling for a two-timeframe approach for repository standards. EPRI recommends studies looking at the repository should extend out for 10,000 years, but only a 1,000-year safety standard should be used for licensing. EPRI gives two reasons for this: radiation levels of spent fuel decrease after 1,000 years and uncertainties in repository performance, such container corrosion, increase.

Exposure Levels Contested

Radiation exposure levels also generated some controversy. The NAS report recommended exposure levels be risk- not dose-based. There was general agreement on that point, but pending congressional legislation places a 100 millirem (mR) per year dose level on the repository. This is four to 25 times higher than acceptable in most countries, Pigford said.

The NAS report did not say what an acceptable level of risk from the repository is, but left that decision up to policymakers. The report did mention a 10-6 risk, but Brocoum indicated this is too strict, as it translates into a 2 to 20mR per year dose. A risk of 10-4 or 10-5 is more acceptable, as this translates into a 20 to 200 mR per year dose, he said.

TRANSPORTATION: The Research and Special Programs Administration (RSPA), Department of Transportation, will reformat the Hazardous Materials Table and List of Hazardous Substances and Reportable Quantities as part of its continuing effort to remove unnecessary, obsolete and duplicative rules in the Hazardous Materials Regulations (HMR). HMR rules cover handling and transport of radioactive materials. The change will eliminate 100 pages from the Code of Federal Regulations (CFR), the bible of U.S. agency rules. Among changes RSPA will make by Oct. 1 will be elimination of the synonym column, which lists alternate names for regulated hazmat. RSPA will replace label names with

codes that state the hazmat class or division number. "RSPA believes this final (reformatting) rule will enhance compliance by reducing the number of regulations in the HMR and making them easier to use," the agency stated. Copies of the April 29 Federal Register outlining the changes, 9 pp., can be purchased through BPI DocuDial, No. 48-1374.

Record -8
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03154419 INTERIM SF STORAGE: NSP, MESCALEROS SUSPEND NEGOTIATIONS FOR NM SITE Nuclear Waste News April 25, 1996 V. 16 NO. 17 ISSN: 0276-2897 WORD COUNT: 394

Negotiations with the Mescalero Apaches to build a private interim storage facility on the tribe's New Mexico reservation have been indefinitely suspended, Northern States Power (NSP) announced April 18. The company and the tribe will, however, continue pursuing private interim storage options.

While work on the facility was proceeding, negotiations between the tribe and the 11 utilities seeking to build the facility seemed to reach an impasse, according to Scott Northard, project manager for NSP. While he would not be specific, Northard said the issues revolved around problems of trying to establish a first-of-a-kind interim storage facility with a sovereign tribe.

NSP and the other utilities need an interim facility completed by a specific time, Northard said. NSP may have to close its Prairie Island nuclear plant by 2004 if it cannot find spent fuel storage (NWN, April 11, p. 143). The utilities did not feel they could complete negotiations and build a facility in the required timeframe and so decided to move on, Northard said.

'We Didn't Part on Bad Terms'

"We didn't part on bad terms," Northard said of the Mescaleros. But he would not speculate on what would happen if the tribe again approached the utility on the matter. NSP is committed to an interim storage option and is pursuing the matter with other interested parties. Naming those prospective parties would be "premature," according to Northard. "We're not giving up by any stretch of the imagination," he said.

Northard said the end of talks with the Mescaleros does not represent failure. The work on the Mescalero facility established a price benchmark for any future interim facility, Northard said. After meeting with NSP representatives last year, DOE lowered its cost estimates on an interim facility. That alone made NSP's work worthwhile, Northard said.

For their part, the Mescaleros echoed NSP's reasons for the project's failure and said there are no ill feelings between the groups. "We're both working on trying to solve the storage problem," said Tom Gallagher, the tribe's chief financial officer.

The Mescaleros are not ready to abandon the idea of a private interim storage facility. But they will not work with NSP or any other utility on the project, Gallagher said. The tribe will have a partner in the deal, but Gallagher will not say which company. He expects an announcement might be made within the next 90 days.

Record -9
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03138447 PRAIRIE ISLAND: DAKOTAS SEEK COMPENSATION FOR FUEL STORED AT PLANT SITE Nuclear Waste News April 11, 1996 V. 16 NO. 15 ISSN: 0276-2897 WORD COUNT: 566

Failure by the Minnesota lawmakers to pass any legislation providing compensation to the Prairie Island Dakota tribe for spent fuel stored by Northern States Power at the Prairie Island nuclear plant site may result in court action, tribal representatives said recently.

At the end of this year's session, a bill giving the tribe $10 million plus additional compensation failed to pass in the state legislature. Of the $10 million, $2 million was to come from NSP with the other $8 million coming from the state. NSP would reimburse the state over a period of years.

That bill, however, provided only enough on-site storage to allow Prairie Island's two reactors to operate until about 2004. The company's position is, if the tribe is compensated, the on-site storage should be sufficient to allow the reactors to operate until the end of their license period, 2013 and 2014, said Joe Jensen, NSP's program manager for high-level waste.

NSP Lukewarm on Failed Bill

The tribe accused NSP of lobbying against the bill. Jensen said the utility did not lobby against the bill, but did not actively support it.

NSP worked throughout the legislative session for a bill protecting the interests of all parties involved, including utility ratepayers and the tribe, Jensen said. Earlier in the session, a bill supported by both the tribe and NSP failed to clear a key committee (NWN, Feb. 22, p. 75).

"They're (the Prairie Island Dakotas) upset at a number of parties," said Eric Pehle, a spokesman for the tribe. The tribe feels it is being used in the nuclear game among lawmakers, environmentalists and NSP, he said. "As long as waste remains on Prairie Island, the tribe deserves compensation," said Pehle.

Under a 1994 law, an off-site location for Prairie Island's spent fuel must be found, but the location is limited to Goodhue County, where the plant is located. If an off-site location cannot be found, NSP is limited to building 17 dry casks at the reactor site. That would allow the facility to operate only until about 2004, Jensen said. The 1994 law also gave the tribe third-party status in the waste debate.

The Dakota's fear the Environmental Quality Board, which is responsible for finding an away-from-reactor site for the spent fuel, will abandon the task, Pehle said. But the tribe will use court actions if necessary to keep that from happening, he said.

"We will not allow NSP or the state to force nuclear waste on our community," the tribal council said in a statement. "Unless our community's needs are addressed, we will use our third-party status to make sure the waste is moved off Prairie Island as soon as possible."

For its part, NSP will continue looking for an away-from-reactor storage site, although the utility feels Prairie Island is the best place for the fuel, Jensen said. NSP also will continue working with the tribe in an effort to reach some solution on the spent fuel issue, he said.

Any speculation on what action NSP will take is "premature," according to Jensen. The Minnesota state legislature does not reconvene until 1997. The company is awaiting the outcome of legislation pending in the U.S. Congress on interim storage, and developments on the NSP-led project to build a interim storage facility on the Mescalero Apache reservation in New Mexico, he said. NSP hopes a Mescalero facility can accept spent fuel by 2002.

Record -10
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03124727 CONGRESS: NEVADA COUNTS ON WHITE HOUSE VETO TO STOP NUCLEAR WASTE BILL Nuclear Waste News March 28, 1996 V. 16 NO. 13 ISSN: 0276-2897 WORD COUNT: 516

While there may not be enough votes in the Senate to sustain a filibuster on S. 1271, the "Nuclear Waste Policy Act of 1996," which the Energy and Natural Resources Committee approved March 13 (NWN, March 14, p. 103), there are enough votes to sustain a presidential veto, Sen. Richard Bryan (D-Nev.) said recently.

Speaking March 22 at a conference on nuclear waste sponsored by the Society of Environmental Journalists in Washington, D.C., Bryan said that, while it takes only 60 votes to invoke cloture and end a filibuster, it takes 67 votes to override a presidential veto. While Bryan seemed unsure if there are currently the 34 votes in the Senate needed to sustain a veto, he thinks that will change. "I believe that we can get those members," he said.

Bryan is confident President Clinton will veto the bill if it passes. "I think we're going to be successful in preventing this (S. 1271) from getting into law," he said.

Despite an intense public relations campaign by the nuclear industry, there is almost universal opposition to the bill in Nevada, said Bryan. There is also distrust of DOE, much of which dates from the 1950s when atmospheric testing of nuclear weapons occurred in the state. At that time, the government told citizens near the Nevada Test Site testing was harmless. That turned out not to be the case, Bryan said.

Interim In Name Only

The need for an interim facility "has been the 'holy grail' of the nuclear industry," Bryan said. The nuclear industry is in trouble, and its inability to deal with the waste issue is one reason for the problems. The industry is afraid a repository at Yucca Mountain, Nev., will never be licensed, but hope an interim facility can be turned into a permanent facility, he said.

Bryan pointed to size and licensing provisions in S. 1271 as proof of the industry's intent. The interim facility eventually will store 100,000 metric tons of spent fuel, close to all the spent fuel that current reactors will generate, and be licensed for 100 years with the option for extensions.

"This process has had almost nothing to do with science, it has had everything to do with politics," Bryan said. He suggested storing spent nuclear fuel at power reactor sites until a safe disposal option can be found. Bryan noted repeatedly that a recent Nuclear Waste Technical Review Board report said an interim facility was not needed immediately.

But Bryan was selective when quoting the report, failing to mention the board's recommendation that a storage facility eventually will be required.

It is safe to store spent fuel on-site at nuclear facilities, but it is safer to store it at a central site, said Cathy Roche, vice president for communications at the Nuclear Energy Institute. This is particularly true for fuel from shut-down reactors. "People producing power with nuclear energy do not want to see an unsafe disposal facility."

NWN WELCOMES comments, questions and suggestions. Contact: Thecla Fabian, BPI, 951 Pershing Drive, Silver Spring, MD 20910-4464; (301) 587-6793, ext. 3070; fax: (301) 587-1081.

Record -11
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03124723 TRANSPORTATION: INTERVENER GROUPS: TRANSPORTATION IS ACHILLES' HEEL OF WASTE STORAGE Nuclear Waste News March 28, 1996 V. 16 NO. 13 ISSN: 0276-2897 WORD COUNT: 570

Groups trying to stop legislation calling for an interim storage facility for high-level radioactive waste in Nevada, H.R. 1020 and S. 1271, apparently are using transportation issues to rally congressional and public opposition. At a March 27 briefing on the bills sponsored by Sen. Richard Bryan (D-Nev.) and Rep. John Ensign (R-Nev.), opponents of the pending legislation raised doubts about the need for an interim facility and the ability to safely transport waste there.

While admitting the safety Record for transporting spent nuclear fuel in the United States is good, the transportation campaign required under the pending legislation dwarfs anything done to date, according to Mary Olson of the Nuclear Information and Resource Service. The bills call for moving as much spent fuel in three years as has been shipped in the entire United States until now, Olson said.

No Time, No Money

Emergency responders cannot prepare for such an intensive transportation schedule in the two to three years available for training before nuclear waste shipments begin, said Fred Millar, coordinator for the Nuclear Waste Citizens Coalition. Furthermore, money to pay for the training is not available. Olson cited a 1981 Nuclear Regulatory Commission (NRC) report that estimated costs of $5.6 million per year to fund a state emergency response program.

The report, prepared for the NRC by Rockwell International, however, details the costs of developing an emergency response program where cost is no object. The report called it the "blue ribbon" response system. An NRC spokesman said he did not know if the agency has done a report detailing the minimum costs and requirements for an emergency response program.

While pending legislation contains funding for state emergency response training, it is inadequate, Olson said. And because funding requires yearly congressional appropriations, the money is likely to be inconsistent, she said.

Transportation language in the bills has not been thought out, Millar told NWN. While the spent fuel will be moved eventually, there are not even enough shipping casks now available to move the fuel as the bill requires.

Olson estimates it will take 30 years and 15,000 shipments to move all waste from reactor sites to an interim storage facility. Using statistics based on the number of accidents per mile traveled, she estimates there could be 20 accidents per year involving spent nuclear fuel, if trucks transport all spent fuel. DOE anticipates using trucks and rail to move spent fuel.

Representatives from the nuclear industry dismiss the transportation risks, saying there have been no releases from any of the half dozen accidents involving spent fuel in the United States. "I think it's a way to scare people," Leigh Ann Marshall, a spokeswoman for the Nuclear Energy Institute, told NWN after the briefing.

Indeed, Olson laid out a "what-if" scenario for the audience comprised mostly of Capitol Hill staffers. She speculated on what might have happened in a recent commuter train accident outside of Washington, D.C., if a spent-fuel train, rather than a commuter train, had been involved, Olson painted a picture of a crushed cask leaking radioactivity in an urban neighborhood. The rail line where the crash happened could be used to carry spent nuclear fuel from reactor sites, she said.

Marshal sees groups opposed to interim storage using the transportation issue for political purposes. Eventually the spent fuel will have to be moved, and it is something that can be done safely, she said.

Record -12
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03115936 DOE BUDGET REQUEST: DREYFUS: $400M WOULD ALLOW REPOSITORY OPERATION BY 2010 Nuclear Waste News March 22, 1996 V. 16 NO. 12 ISSN: 0276-2897 WORD COUNT: 524

DOE anticipates submitting a license application for a repository at Yucca Mountain, Nev., by 2002, and the repository could open by 2010, said Office of Civilian Radioactive Waste Management (OCRWM) director, Dan Dreyfus.

Speaking in Washington, D.C., March 19 at a news conference announcing DOE's proposed fiscal year 1997 budget, Dreyfus said DOE has developed a repository program designed to regain the program objectives of opening a permanent repository in a timely fashion.

In its FY'97 budget, DOE is requesting $400 million for OCRWM, with $200 million coming from the Nuclear Waste Fund and another $200 million coming from the Defense Nuclear Waste Disposal Fund.

In FY'96, Congress appropriated $400 million for work at Yucca Mountain, but then fenced off $85 million, reserving the money for development of an interim storage facility. In FY'96, the Clinton Administration requested $630 million for OCRWM activities.

A New Plan

Of the FY'97 funds, $339 million will go for site characterization work at Yucca Mountain. "We have been able to respond to budget reductions with a new plan that can preserve the major objectives of the program despite a greatly reduced level of funding, and with 1000 fewer contractor positions," Dreyfus said.

Goals for Yucca Mountain work in 1997 include:

Completion of the exploratory tunnel and all major underground test alcoves.

Penetration of the Ghost Dance Fault, a major geologic feature in the repository horizon.

Conducting heater tests to determine a thermal loading strategy.

Completion of detailed designs for engineered waste isolation features to support the next total-system performance assessment.

A viability assessment on the site will be completed by 1998, Dreyfus said. DOE will delay most licensing and National Environmental Policy Act activities until after Yucca Mountain is deemed viable. If the site is considered viable, licensing and NEPA activities will restart, and options for interim storage will be considered.

In addition to site characterization work, the FY'97 budget includes $10 million for generic waste acceptance, storage and transportation activities. This includes a market-driven initiative creating a national capability to remove spent fuel from reactor sites. DOE also will have a pre-licensing discussion with the Nuclear Regulatory Commission on procedural aspects of licensing a non-site-specific interim storage facility.

Dreyfus admits that if Congress passes one of the nuclear waste bills, S. 1271 or H.R. 1020, currently proposed, DOE will need to restructure its activities at Yucca Mountain. But obtaining an NRC construction license for a permanent repository by 2002, and building an interim storage facility, can be accomplished if Congress allows the money collected in the Nuclear Waste Fund to be spent on the project.

If Congress does not approve the $400 million requested for the civilian waste program, it may be the end of Yucca Mountain, said Dreyfus. Calling FY'96 a disaster, he said, "we've got to have a good (budget) year in 1997."

Dreyfus said he would recommend "bagging" the program if Congress did not approve the money. He also indicated he personally will leave if the money for the program is not there. "This is about it. We've replanned this program and replanned this program and it needs to be supported."

Record -13
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03115935 NWTRB: DECIDE ON YUCCA SITE SUITABILITY, THEN DECIDE ON INTERIM STORAGE Nuclear Waste News March 22, 1996 V. 16 NO. 12 ISSN: 0276-2897 WORD COUNT: 716

The independent review panel overseeing the high-level radioactive waste repository program has reached the same conclusion as the Clinton administration. DOE should delay deciding on a site for an interim nuclear waste storage facility until it has made a decision on the suitability of Yucca Mountain, Nev., as a permanent repository.

The Nuclear Waste Technical Review Board's (NWTRB) report, Disposal and Storage of Spent Nuclear Fuel - Finding the Right Balance, prepared for Congress and the Secretary of Energy recommends:

DOE continue site-suitability studies for a permanent repository at Yucca Mountain.

DOE begin generic planning for a central interim storage facility and supporting transportation infrastructure. The goal should be to open a full-scale facility, capable of accepting 3,000 metric tons of spent fuel per year, by the year 2010.

Development of the interim facility should be delayed until a decision about Yucca Mountain's suitability as a repository is made. NWTRB believes this will happen in the next five years.

At a March 20 news conference in Washington, D.C., NWTRB Chairman John Cantlon said the board "concluded the nation needs both a repository development program and a plan to address future spent fuel storage needs." Interim storage is needed to deal not only with civilian spent nuclear fuel, but also DOE's own spent fuel and high-level waste from the weapons program.

At-Repository Storage Needed

A storage facility also will be needed to facilitate operations at a permanent repository, said Cantlon. For example, removal of spent fuel from an operating repository could be required to adjust the thermal load of the repository. This would require a nearby storage facility. These considerations led NWTRB to conclude the storage facility should be co-located with the repository.

The board found "no compelling technical or safety reasons to begin moving spent fuel from reactor sites for the next few years," Cantlon said. He feared shifting the focus of the high-level waste program to interim storage could jeopardize the repository program by forcing it to compete for funds with the interim facility and eroding support for repository development. Also, siting an interim facility at Yucca Mountain before a suitability decision is made could create a real or perceived prejudice in favor of locating the permanent repository there.

DOE needs five to seven years to build the interim facility and create the transportation infrastructure. At the same time, the department plans to make a suitability assessment at Yucca Mountain within five years. "A clear and technically defensible waste isolation strategy is beginning to emerge," Cantlon said.

The report was received with cautious optimism by some in the environmental community. "Honestly, I'm thrilled someone is taking the full scope of variables into account," said Mary Olson with the Nuclear Information and Resource Service. NWTRB's focus on transportation issues is particularly welcome, she added.

Emphasizing she has not read the entire report, Olson said it reminded her of negotiating a "win-win compromise between two quarrelsome children." And while admitting that is not necessarily a bad thing, she expressed concerns that technical decisions on Yucca Mountain suitability could be based on political, not scientific issues.

Industry Unhappy

Pro-nuclear groups were not happy with the report. Representatives from the Nuclear Energy Institute (NEI), the industry's lobbying group, were clearly upset with the recommendations. "They're playing in the policy sandbox," said Steve Unglesbee, an NEI spokesman. An NEI press release issued the night before the board officially released its report charged NWTRB "has undermined its own credibility and clearly overstepped its legal charter by becoming an advocate of policy instead of a defender of science.

"The nuclear industry unanimously believes that the federal government is obligated to take used nuclear fuel by 1998 or shortly thereafter. If the board had truly based its recommendations on science, it would have found 93 compelling reasons to move used fuel into centralized interim storage. That's how many nuclear plants will have run out of existing space to store used fuel by 2015."

Cantlon defended the board's position. "Many issues we looked at .... are interconnected. And in the end, we found that in deciding how best to store commercial spent nuclear fuel, ultimately a series of value judgments would have to be made." The recommendations reflect the judgment that, technically, a repository and storage facility need to be located near one another.

Record -14
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03108103 MULTI-PURPOSE CANISTERS
HIGH NOON FOR NUCLEAR POWER SEEN Nuclear Waste News Feb 29, 1996 V. 16 NO. 9
ISSN: 0276-2897 WORD COUNT: 545

In Present Waste Program Impasse

TUCSON, Ariz. - A standardized multi-purpose canister (MPC) system is an essential part of the spent nuclear fuel management system and DOE needs to move forward with MPC development, said James Gallagher of Westinghouse.

Speaking here Feb. 26, at the opening session of the Waste Management '96 conference, Gallagher said for about $10 million DOE could license a MPC. Westinghouse won the MPC contract from DOE last year, but most of the development efforts were halted because of cuts in DOE budgets.

DOE is hesitant to spend money on a MPC because department officials are afraid to divert money from work on the candidate repository site at Yucca Mountain, Nev., according to Gallagher. That is understandable, given the program's budget situation and the department's goal of opening a repository, he said.

A Drop in the Bucket

The money to develop an MPC is a drop in the bucket compared to the costs of Yucca Mountain, Gallagher said, adding that a standard MPC will save nuclear utilities significant amounts of money in the long run.

A standardized canister design should accommodate 90 percent of the spent fuel from U.S. utilities. Without a standardized design, utilities will continue to buy custom casks suited to the needs of individual powerplants, he said. These designs, however, may be incompatible with the permanent repository.

This means when a repository is finally available, the spent fuel will have to be transferred into casks compatible with the repository design, Gallagher said. Utilities will have to buy casks twice. The old casks will become low-level radioactive waste, and the utilities will have to pay for disposal costs as well. That will drive up the cost of nuclear power and make it less competitive, which is exactly what the anti-nuclear groups want, according to Gallagher. "We need the MPC," he said.

Developing an MPC also helps solve transportation problems associated with shipping spent fuel to a repository or interim storage site. Anti-nuclear groups, or "obstructionists" as Gallagher called them, are using transportation issues to prevent a solution on spent fuel disposal.

High Noon at Yucca Mountain

In keeping with the western theme of Waste Management '96, Gallagher titled his presentation "High Noon for Nuclear Power," and used clips from the famous movie High Noon, staring Gary Cooper, to illustrate his points.

Gallagher likened the anti-nuclear groups to the outlaws in the movie. And compared the bickering towns people, trying to decide how to deal with the outlaws, to the utility industry. DOE, like the sheriff played by Gary Cooper, represents the official government that is supposed to deal with the problem. In the movie, the town's people failed to help the sheriff deal with the outlaws, and in the same way the utility industry is hurting DOE in its efforts to deal with spent fuel, Gallagher said.

By fighting with DOE, all the utilities are doing is giving ammunition to anti-nuclear groups. "Unless we can find ways to work together, America's nuclear plants will shut down," he said. To prevent this, communication between the department and the utilities must be reestablished. The utilities and DOE also must recognize they have a common goal and work together to find a safe and rational spent fuel storage solution, according to Gallagher.

Record -15

DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03107911 INNOVATIVE MANAGEMENT, STAKEHOLDER INVOLVEMENT SPEEDS SF TRANSFERS Nuclear Waste News March 14, 1996 V. 16 NO. 11 ISSN: 0276-2897 WORD COUNT: 476

TUCSON, Ariz. - DOE and its contractor, Westinghouse Hanford Co., will be able to move corroding spent fuel from the K-basins at DOE's Hanford, Wash., facility to an interim facility two years earlier than originally planned due to an innovative management approach and a close working relationship with stakeholders, said John Fulton of Westinghouse Hanford.

Speaking at the Waste Management '96 conference held here last month, Fulton said removal of the spent fuel from the K- east and west basins will begin in 1997, and conditioning and interim storage of the fuel will be finished by December 1999. Original plans called for completion of the fuel conditioning and storage by 2002.

It is important to move the spent fuel from the K-basins as soon as possible because of their proximity to the Columbia River, he said.

By working closely with stakeholders, especially the Washington Department of Ecology, DOE completed the environmental impact statement (EIS) for the project in just under a year.

Thomas Grumbly, then head of DOE's Environmental Management office, delegated responsibility for completing the EIS to the Hanford field office. Normally, this is done at DOE headquarters in Washington, D.C., Fulton said.

The safety analysis report, normally a two-part process, was done in one step, he said.

Stakeholder Involvement

There was real-time interaction with both the Department of Ecology and the U.S. Environmental Protection Agency.

DOE presented fuel removal plans to stakeholders before they were formalized, and then altered the plans based on stakeholder input. This sped up the EIS considerably compared to the standard process, in which stakeholders comment on plans after they have been decided upon, Fulton said.

Improved fuel-conditioning technology also will help speed the fuel removal process. A vacuum conditioning process, which helps dry the spent fuel faster once the sludge is washed off of it, will be used.

The spent fuel will be put in a multi-canister overpack. The radioactive sludges washed from the fuels will be stored in double-shelled tanks at Hanford, then vitrified.

Existing Building Revamped

The fuel-removal project decided to use the canister storage building for interim storage of the K-basin fuel. The building, which is 10 percent complete, originally was built for another purpose. But with minor design changes, the facility can be used for storing the fuel. DOE hopes to approve these changes March 22.

This will save the project $17 million and one year in construction time. The spent fuel can remain in interim storage in the canister building for up to 70 years, Fulton said.

The fuel-removal project at Hanford should cost $727 million. Original estimates placed the costs about $1 billion.

DOE also will save about $29 million a year in operating costs, according to Fulton. It costs $30 million a year to operate the K-basins, while operating costs at the new storage facility will be $1 million a year.

Record -16
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03081924 LIVERMORE WASTE INSPECTION SYSTEM COULD SAVE THOUSANDS PER DRUM Nuclear Waste News Feb 22, 1996 V. 16 NO. 8 ISSN: 0276-2897 WORD COUNT: 285

A mobile inspection system could reduce the cost of inspecting DOE radwaste drums from $10,000 to $1,000 per drum, say developers at Lawrence Livermore National Laboratory.

The trailer-mounted Waste Inspection Tomography (WIT) system was developed jointly by Lawrence Livermore and Bio- Imaging Research Inc., Lincolnshire, Ill.

It uses techniques similar to medical x-rays and CAT scans to examine drum contents. Using the system, technicians can determine the amount, location and types of both radioactive and non-radioactive wastes, as well as the kinds and levels of radioactivity.

Livermore provided the expertise in gamma-ray spectroscopy and active/passive computerized tomography. "The uniqueness of the WIT system is its ability to provide quantitative results with reasonable throughput and cost," said Richard Bernardi, vice president for business development at Bio-Imaging and a WIT program manager.

Tests at SRS, INEL

The prototype WIT system will be mounted on a 48-foot trailer. It will be tested at DOE's Savannah River Site (SRS), Aiken, S.C., and the Idaho National Engineering Laboratory (INEL) in Idaho Falls.

DOE expects to spend between $1,000 and $10,000 to permanently store waste drums, depending on the waste inside. Accurate drum inspections will assure that each waste container is properly stored.

Hundreds of thousands of drums are stored temporarily at DOE sites around the country, awaiting the opening of permanent storage sites. These drums must be inspected before they can be permanently stored.

The drums contain various types of waste, including low- level radioactive waste (LLW) and transuranic waste (TRU); contaminated laboratory clothing, equipment and paper towels; mixed wastes, including LLW and TRU wastes contaminated with oils, solvents or heavy metals; and high- level waste, such as spent fuel rods and vitrified wastes.

Record -17

DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03081923 DOE TO ASSUME RESPONSIBILITY FOR FORT ST. VRAIN SPENT FUEL Nuclear Waste News Feb 22, 1996 V. 16 NO. 8 ISSN: 0276-2897 WORD COUNT: 316

DOE has worked its way out of the proverbial space between a rock and a hard place with a Feb. 9 agreement with Public Service Co. of Colorado allowing DOE to pay for continued on-site spent fuel storage at the Fort St. Vrain reactor near Plattville, Colo., rather than shipping the fuel to Idaho National Engineering Laboratory (INEL). DOE will assume operation of the fuel storage site.

DOE had been caught between two mutually conflicting legal obligations. A November 1995 agreement with Idaho Gov. Phil Batt (R) (NWN, Oct. 19, 1995, p. 403) allowed a limited number spent fuel shipments from Fort St. Vrain to come to INEL only if a repository or interim storage facility located outside Idaho were already open and accepting fuel from INEL. INEL only could keep the Fort St. Vrain fuel long enough to prepare it for out-of-state storage or disposal.

On the other hand, a 1965 contract between DOE's predecessor agency (the Atomic Energy Commission) and PSC called for the federal government to store spentfuel from the experimental gas-cooled reactor. INEL was the only DOE site equipped to receive the fuel.

After the Fort St. Vrain reactor ceased operations, PSC was unable to ship the fuel because of Idaho's legal challenges to spent fuel storage at INEL. The company, therefore, built a Nuclear Regulatory Commission (NRC) licensed dry storage facility at the reactor site.

Under the new agreement, DOE will pay PSC $16 million to settle the utility's claims for the costs of building and licensing the dry storage facility. DOE took immediate title to the fuel, but PSC will continue to manage it in the dry storage facility for DOE under its current NRC license.

DOE will apply to NRC for a transfer of PSC's storage license, and will take title to the facility and the property. DOE will begin operating the facility once NRC has transferred the license.

Record -18
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03081922 OFF-SITE SPENT FUEL STORAGE PACT STALLS IN STATE SENATE COMMITTEE Nuclear Waste News Feb 22, 1996 V. 16 NO. 8 ISSN: 0276-2897 WORD COUNT: 486

An agreement between Northern States Power (NSP) and the Mdewakanton Lakotas allowing the company to store spent fuel from the Prairie Island nuclear plant on tribal land is stalled because a bill sanctioning the agreement failed to make it out of a key committee in the Minnesota state senate.

The agreement signed last year by NSP and the tribe allows the company to place dry casks on tribal land near the Prairie Island nuclear plant. In exchange, NSP will give the tribe an undisclosed amount of money over the next 20 years as compensation. The utility also promised to buy a parcel of land, in trust for the tribe, away from the reservation so tribal members who did not want to live near the stored nuclear waste could move.

Lakotas Approached NSP

The tribe approached NSP last year and said it wanted to work out an agreement to take the dry spent fuel casks in exchange for monetary compensation, said Merle Anderson, an NSP spokesman. Until that time, NSP had no plans to alter 1994 legislation that gave the company permission to re-rack its fuel pool and install 17 dry casks at Prairie Island.

The 1994 legislation also allowed NSP to look for an off- site storage location; however, it limited such potential off-site storage to the county where the power plant is located. The utility ran into a strong "not in my backyard" sentiment from residents and has not found a storage location, Anderson said.

The off-site search created some backlash against the tribe, with local residents blaming the tribe for not allowing dry-cask storage on their land, according to Anderson. He believes this may have prompted the tribe to approach the utility. Also, the tribe currently receives no money from NSP for its operations at Prairie Island.

The new legislation sanctioning the deal with the Lakotas encountered problems in the state senate's environment committee, primarily because of the provisions to purchase a parcel of land for the tribe in trust, Anderson said.

This would take the land off the tax roles and also would allow the tribe to use the land in ways the state cannot control, he said. Some legislators on the committee opposed the original plan allowing NSP to re-rack and build on-site storage, and also oppose the new legislation.

The failure of the new legislation will not impact Prairie Island operations in the short-term, Anderson said. "It doesn't mean anything changes," he said. The company will still re-rack the power plant's fuel pool and proceed with installing the 17 dry casks allowed on-site by the earlier legislation. These actions will allow the plant to operate until about 2004, Anderson said.

By then, if everything goes as planned, the NSP interim storage facility located in New Mexico on the Mescalero Apache reservation should be operational. Still, the company hopes the bill will pass in the state senate next legislative session, Anderson said.

Record -19
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03048994 MULTI-PURPOSE CANISTERS INDUSTRY COALITION DEVELOPS PRIVATE UNIVERSAL
CANISTER Nuclear Waste News Jan 18, 1996 V. 16 NO. 3 ISSN: 0276-2897 WORD COUNT: 241

NAC International, Atlanta, Transnuclear Inc., New York, and ABB Combustion Engineering Nuclear Systems, Windsor, Conn., are collaborating to design, license and develop a private sector, canister-based Universal MPC System (UMS) for storage and transport of spent nuclear fuel. The decision resulted from DOE's decision to terminate its Multi-Purpose Canister System (MPC) program due to funding constraints.

Preliminary designs have been completed as the UMS will be the first universal spent fuel system able to both store and transport virtually all U.S. spent fuel and most international fuel, the partners say. It will be based on existing technology already licensed by the Nuclear Regulatory Commission (NRC).

Key Components

The key components will be an 18-foot-long stainless- steel multi-purpose canister that will be loaded with spent fuel and sealed; vertical concrete or metal overpacks for on-site or centralized storage; and a reusable 80-ton metal overpack that will be used to transport the canister. Fully loaded, the system will weigh 125 tons. Standard capacity will be 24 PWR (pressurized water reactor) or 52 BWR (boiling water reactor) fuel assemblies. Greater capacities will be possible.

The partners plan to apply for an NRC license this year and expect approval by 1998. NAC and Transnuclear are two leading U.S. spent fuel technology and transportation service companies. ABB C-E is one of the largest service suppliers for the nuclear power industry.

Contact: NAC International, 655 Engineering Dr., Norcross, GA 30092; (770) 447-1144; fax: (770) 447-1797.

Record -20
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03048992 SPENT FUEL COURT HEARS ARGUMENTS IN UTILITY SUIT TO ENFORCE 1998 DEADLINE Nuclear Waste News Jan 18, 1996 V. 16 NO. 3 ISSN: 0276-2897 WORD COUNT: 749

DOE should be required to accept civilian spent fuel in 1998, even if no storage site or repository is available, argued lawyers for 25 utilities and 22 state regulatory agencies Jan. 17 in a suit filed against the department in the U.S. Court of Appeals for Washington, D.C. DOE claims it has no obligation to start accepting spent fuel by any specific date.

Arguing for the petitioners, Jay Silberg said DOE has an unconditional obligation to begin accepting spent fuel by 1998. This obligation is spelled out in the federal Nuclear Waste Policy Act of 1982, which Silberg termed "carefully crafted legislation."

A Clear Declaration

The utilities want a clear declaration from DOE that it has an obligation to start accepting spent fuel in 1998 in return for utility payments into the Nuclear Waste Fund (NWF), Silberg said. "DOE simply wants to read that date out," he said. "Removal of the deadline takes away the obligation to move forward with the program."

The court raised the issue of its jurisdiction in the matter, questioning Silberg on whether the petitioners wanted the court to oversee the high-level waste program. But the utilities only wanted the court to rule that DOE is obligated to accept spent fuel in 1998, Silberg said.

Judge David Sentelle said the court could do that. But all three judges expressed reservations about the court's ability to impose a remedy on DOE. That is not what the utilities want, Silberg said. DOE must find a way to meet the deadline, he said. There are various solutions to spent fuel acceptance that DOE has not investigated, he said.

Waste Fund Payments

Judge Stephan Williams asked if the utilities could stop payments into the NWF if DOE did not meet its obligation. Silberg agreed this option was possible.

The court also questioned its jurisdiction in the case because dispute resolution clauses were written into the spent fuel acceptance contracts signed by DOE and the utilities in 1983. These dispute resolution mechanisms are for issues associated with the specifics of the contracts, not the broad policy issues the utilities are arguing, Silberg said.

Speaking with reporters after the oral arguments, Silberg said he felt the court only was concerned about dictating remedies to DOE, not actual jurisdiction. What the utilities want is DOE to admit it has an unconditional statutory obligation to meet the 1998 deadline, for DOE to develop a plan for meeting the deadline and to place NWF payments in an escrow account, Silberg said.

DOE argued the 1998 deadline is not an absolute obligation, but an implied condition. That implied condition is when a facility is available, DOE must dispose the spent fuel, said John Bryson, a Department of Justice lawyer arguing the case for DOE. DOE has the right not to take spent fuel until there is a repository, he said.

DOE may have the right not to accept the spent fuel until there is a repository, but there are consequences, Williams said. DOE's arguments made the high-level waste program look like a "giant swindle," Judge Douglas Ginsburg said. "You give us money and we give you air."

'A Goal, Not a Deadline'

Bryson termed the 1998 date a goal, not a deadline DOE must meet. But Sentelle seemed to disagree with that, asking how Congress could state more plainly that 1998 is an obligation. Bryson could not answer the question.

When Bryson argued there was no absolute obligation since the nuclear waste program was not a contract between two private parties, Ginsburg snapped back that if it were, "one of them would be in jail."

"It couldn't have gone better," Silberg said after the arguments. While he warned it was difficult to draw conclusions based on questions asked during oral arguments, Silberg said it was clear the three judges have serious questions about DOE's belief it does not have to begin accepting spent fuel by 1998.

Silberg believes if the court orders DOE to meet the 1998 date, DOE will comply. The court has three options if it orders DOE to comply with the 1998 date.

The court can say DOE is obligated to accept spent fuel, and let DOE develop a plan to comply.

The court can require DOE submit the plan to the court for review after it is developed.

The court can impose a solution on DOE.
No date has been set for a ruling and Silberg would not speculate when the court would issue a ruling in the case.

Record -21
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03034942 ENVIRONMENTAL GROUPS ATTACK DOE PLANS TO REPROCESS DAMAGED FUEL Nuclear Waste News Jan 11, 1996 V. 16 NO. 2 ISSN: 0276-2897 WORD COUNT: 593

DOE's plans to reprocess its spent nuclear fuel at the Savannah River Site near Aiken, S.C., and other locations undermines U.S. non-proliferation goals and threatens the environment and public safety, environmental groups said.

DOE claims reprocessing is the best way of stabilizing deteriorating fuel now in storage.

DOE announced its reprocessing plans for spent fuel at SRS in a Record of decision released Dec. 8 (NWN, Dec. 21, 1995, p. 496). The agency also is planning to treat breeder reactor fuel at the Idaho National Engineering Lab using reprocessing equipment from the Integral Fast Reactor (NWN, Dec. 21, 1995, p.493).

Dry Storage

But a report, Risky Relapse Into Reprocessing, released by the Institute for Energy and Environmental Research (IEER) at a Jan. 4 press conference in Washington, recommends DOE put its spent fuel in interim dry storage until a permanent disposal solution can be found. "The Department of Energy appears to be drifting back toward reprocessing as a solution without an adequate analysis of its consequences or alternatives," the report said.

DOE contends reprocessing is the best way to deal with its inventory of corroding aluminum-clad fuel. DOE plans to reprocess only 140 metric tons of spent fuel out of its total inventory of 27,000 metric tons, said Jayne Brady, a DOE spokeswoman. Reprocessing is the quickest, most cost- efficient way to handle this fuel, she said.

The report contends other alternatives exist, but DOE is unwilling to investigate their potential. "Because reprocessing was what was done with most DOE spent fuel during the Cold War, parts of the DOE bureaucracy are resistant to considering other options," the report said.

None of the options for dealing with DOE spent fuel are without risk, said Arjun Makhijani, IEER president.

"Reprocessing is a cure that is worse than the disease," he said.

More Liquid Waste

Reprocessing operations would add 3 million gallons of liquid high-level waste to storage tanks at DOE's Savannah River Site near Aiken, S.C., said Noah Sachs, the report's author. "This will exacerbate the current risk of fire or explosion in the tanks, arguably the most serious problem within the weapons complex," he said.

DOE estimates reprocessing will expose residents near SRS to 5 million times more radiation than if the spent fuel were put in dry storage, Sachs said. DOE estimates one worker at SRS will die from cancer if reprocessing at SRS resumes, he said.

Reprocessing its corroding fuel is the only way it can be stored in a repository, DOE says. The report, however, points to DOE studies saying any treatment of spent fuel should wait until the repository site and type are known.

"It may very well turn out that reprocessing in the near- future for the purpose of long-term cost savings or to avoid technical uncertainties will be a waste of money and counter-productive on environmental grounds," the report said. Any disposal solution will likely be site specific, according to Makhijani.

If DOE begins reprocessing its spent fuel, it will be difficult to prevent other nations from reprocessing, Sachs said. "It creates a kind of reprocessing double standard." This will undermine U.S. non-proliferation goals, he concluded.

The United States opposes reprocessing of spent commercial nuclear fuel, and ended reprocessing of DOE fuel in 1992. Reprocessing of spent fuel for stabilization purposes does not represent a policy change however, Brady said, and it will not impact non-proliferation efforts.

NWN WELCOMES comments, questions and suggestions. Contact: Thecla Fabian, BPI, 951 Pershing Drive, Silver Spring, MD 20910-4464; (301) 587-6793, ext. 3070; fax: (301) 587-1081.

Record -22
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03034940 RUSSIA MAY FIND LUCRATIVE MARKET IN NUCLEAR WASTE, SAFETY SERVICES Nuclear Waste News Jan 11, 1996 V. 16 NO. 2 ISSN: 0276-2897 WORD COUNT: 614

One of Russia's potentially leading methods for earning heard currency is the sale of nuclear safety and waste management goods and services.

Although subject to question by many, Russia's nuclear power ministry, Minatom, has worked in recent years to boost the country's credibility with the International Atomic Energy Agency and other watchdogs.

The ability to reprocess nuclear waste is a goal sought by many but only possessed by a few. Russian authorities have taken advantage of this capability and in recent weeks have received a trainload of spent nuclear fuel from a Finnish nuclear power plant. The material reportedly arrived at the Mayak plant in Chelyabinsk-65.

An English translation of the Komsomolskaya Pravda newspaper says it is not yet clear whether the nuclear residue remaining after processing will be shipped back to Finland or kept inside the Russian Federation.

German, Swiss Waste

Meanwhile, Germany and Switzerland have decided not to send spent nuclear fuel to Krasnoyarsk-26 for processing, Krasnoyarsk Krai Deputy Governor Sergei Arinchin was quoted as saying.

The waste would have been processed at the RT-2 plant - still under construction - in the formerly secret nuclear center in Siberia.

The Russian authorities had hoped to finance the project by accepting foreign waste, enabling them to process their own stocks.

The Swiss and German pullout will deal a major blow to the project. The decision is likely to be hailed by environmental groups, which have strongly opposed the importation of nuclear materials, arguing that Russia's waste storage sites are already overflowing.

In a small twist on the story, Minatom spokesman Georgy Kaurov said late last week Russia has no plans to store Taiwanese nuclear waste and any contract between the two would violate Russian law.

There were reports 2,500 to 5,000 barrels of low-level radioactive waste from Taiwan could arrive as early as this summer.

Kaurov said Russian law forbids bringing nuclear waste into the country.

Taiwan currently uses a waste storage facility on Orchid Island.

Meanwhile, the German Company for Nuclear Containers signed a contract with Russia's Kursk nuclear power plant to construct a nuclear waste storage facility and provide 240 containers to store the plant's radioactive waste.

The company, a Nukem subsidiary, will control production quality, train specialists and provide the know-how for production.

According to Gosatomnadzor, Russia's nuclear safety agency, the solid waste storage facilities at the Kursk plant are full.

Nuclear Safety Threatened

Nuclear safety may be threatened by workers at Russia's nuclear power plants, who say they may shut down the facilities unless they receive overdue wage payments.

Officials say they have scheduled warning protests, but it is not clear what form they will take.

Energy consumers owe nuclear power plants about 2.5 trillion rubles (US$555 million), and on average workers have not been paid for three months, according to the deputy head of Rosenergoatom in Moscow.

Kazakhstan Troubled

While Russia is working to effectively manage nuclear waste from its own and foreign reactors, the amount of waste accumulating at uranium mining and processing plants in Kazakhstan reportedly is reaching alarming proportions.

Since this large, very poor Central Asian country became independent in 1991, the quantity of radioactive waste stored in Kazakhstan has grown to 219 million metric tons.

The republic's Ministry of Ecology and Biological Resources claims the aggregate radioactivity from the waste comes to 250,000 curies, which is "many times more than the accepted norm."

Kazakhstan does not have the means to deal with the waste because under the Soviet Union's regime disposal was a national responsibility carried out by the government in Moscow.
Today, there are neither any Kazakh laws nor bilateral agreements with Russia that adequately address this nuclear waste dilemma.

Record -23
DIALOG(R)File 636:IAC Newsletter DB(TM) (c) 1996 03026715 REPROCESSING AT SRS CHEAPER THAN REPOSITORY, REPORT FINDS Nuclear Waste News Jan 4, 1996 V. 15 NO. 1 ISSN: 0276-2897 WORD COUNT: 711

Using existing facilities at DOE's Savannah River Site (SRS), Aiken, S.C., to reprocess civilian spent fuel (SF) would be considerably cheaper than continuing with the current repository program, concluded a report prepared by Westinghouse Savannah River Co. for DOE at the request of Rep Charles Norwood (R-Ga.).

The report, delivered to DOE Aug. 21, is unclassified, but has not been officially released by DOE or Norwood's office.(% Available through BPI DocuDial, 28 pp., No. 48- 1110.)

Questions about using SRS to reprocess spent civilian fuel and the impact on the civilian waste program prompted Norwood to make the request, an aide said. Reprocessing operations could provide an economic boon to the region around SRS.

The report, Chemical Stabilization of Defense Related and Commercial Spent Nuclear Fuel at the Savannah River Site, said a repository is required, even with reprocessing. But "technical uncertainty would be significantly lessened by the 20-fold volume reduction, and the conversion of the waste to a single form containing only short-lived, non- fissile products."

Billions To Be Saved?

Westinghouse estimates the annual cost of reprocessing civilian spent fuel at $350 million a year and the cost for dealing with the current inventory of spent civilian fuel at $8 billion, including estimated repository fees. "Chemical stabilization is almost certainly less costly than direct disposition technology, maybe by several billion dollars," the report said.

"These facilities could consolidate and stabilize nuclear wastes into manageable and ultimately disposable forms, thereby providing a bridge to the future when decisions will have to be made as to the long-term approach to energy production, defense needs and nuclear waste management in this country," the report said.

Besides costs savings, reprocessing civilian SF at SRS solves on-site storage problems at commercial nuclear powerplants and allows DOE to comply with the Nuclear Waste Policy Act by accepting SF by 1998, the report said.

Under the plan spelled out in the Westinghouse report, SF now stored at SRS would be reprocessed and then the facility could provide "ongoing treatment services for a wide variety of defense and commercial spent fuels." Radioactive waste produced from the reprocessing operation would be vitrified in borosilicate glass logs. DOE could either sell reprocessed civilian fuel back to powerplants or dispose of it in a repository.

Upgrade Costs Omitted

In estimating the cost of reprocessing civilian SF at SRS, the report does not include the costs of upgrades needed for the F- and H- canyons. John Duane, a Westinghouse manager who helped prepare the report, said the upgrades could be anywhere from minor to major, depending on what types of fuel will be reprocessed. It was an oversight that upgrade costs were omitted; they should be in the report, he said.

A standard shear/leach process would be used to process commercial SF. The report estimates these upgrades would cost $100 million. After that, only normal capital upgrades would be needed, Duane said.

Brian Costner, of the Energy Research Foundation, an SRS watchdog group, disputes those figures. When SRS reprocessing operations stopped in 1992, major upgrades to the facility were never completed. Completing the upgrades is expensive, Costner said. Duane, however, said about three-quarters of the planned upgrades were completed before the shutdown. The buildings are 40 years old, but the reprocessing equipment is fairly new, he added.

Costner thinks the purpose of the report is to build political support for commercial reprocessing. He expects reprocessing supporters to use it to press for a change in U.S. policy, which now prohibits civilian SF reprocessing. Reprocessing, however, is gaining support in Congress.

Norwood's office had no comment on whether the representative would propose legislation to open SRS for civilian reprocessing. At press time Jan. 4, Norwood was touring SRS and would make a decision based on what he learned during the tour, an aide said.

Using a U.S. defense facility to reprocess civilian SF is a new idea and sets a dangerous precedent, said Arjun Makhijani, president of the Institute for Energy and Environmental Research. The report is "a clear waste of taxpayers dollars and a dangerous waste of taxpayer dollars," he said.

No other Congress members contacted by NWN had seen the report. Nuclear-industry representatives also were unfamiliar with it or any plans to reprocess civilian fuel at SRS.